

UTEP Department of Computer Science
CS 1310 – Introduction to Computational Thinking
Spring 2026
CRN: 28022

Computational thinking is the process of converting a real-world problem into a software-based solution. This course introduces computers and problem-solving. In this course, students learn analytical skills involving computer programming and software tools that are transferable to multiple disciplines.

Meeting Times: Tuesdays and Thursdays, 4:30 PM - 5:50 PM

Location: College of Business Admin Building, Room: 313

Prerequisites: None. Any student from any UTEP department can enroll.

Instructor: Ms. Veronica Rivas, MSSeW

Email: vrivas4@miners.utep.edu

Office Hours: Tuesdays and Thursdays, 2:00 PM – 4:00 PM, or by appointment.

Office location: Chemistry and Computer Sci Bldg. 3.1202D

Teaching Assistant: TBA

Email: TBA

Office Hours: TBA

Office location: Chemistry and Computer Sci Bldg. 1.0706

Grading:

Your semester grade will be based on a combination of classwork/homework, assignments, in-class activities, quizzes, and midterms and exams. The approximate percentages are as follows:

30% Homework/Assignments
10% Quizzes (in-class and out-of-class)
30% Midterms
25% Final exam
5% Attendance

The instructor may decide to penalize a student's grade, in all or a subset of grading components, if the student excessively misses classes or arrives late.

The nominal percentage-score to letter-grade conversion is as follows:

- 90% or higher is an A
- 80-less than 90% is a B
- 70-less than 80% is a C
- 60-less than 70% is a D

- below 60% is an F

Textbook: The instructor will provide reading materials and slides via Blackboard. There is no specific textbook for this course.

Tentative topics to be covered:

- Pillars of computational thinking
- Computer hardware, OS types
- How computers store data, number system, binary to decimal conversion
- Intro to R Programming -- Installation, printing a message, basic data types, use of variables
- Arithmetic and logical expressions, intro to conditional statements
- Practice on conditional statements
- Iteration, iteration with selection
- Modularization/Functions
- Testing and debugging
- I/O operations, reading from files, reading data files
- Processing data
- Data visualization
- Data analytics

CLASS POLICIES:

You must have a laptop in the classroom.

1. Assignments and Materials

- a. All assignments will be announced via Blackboard.
- b. Labs, assignments, and quizzes are to be submitted via Blackboard. Notice that Blackboard has an automatic submission window that will timestamp your submission; anything submitted after the deadline will be considered late.
- c. Some or all exams and all quizzes will require the use of LockDown Browser. Please make sure you have the LockDown Browser app installed on your device prior to exam days. You will not be able to access the assessment without it.
- d. Assignments turned in late will be penalized 10% for each day or partial day of lateness. After the third day of lateness, the assignment's grade will result in a 0.
- e. Selected lab assignments can be done in teams of three. Notice that your instructor will specify which programming assignments can be done in teams. Do not assume otherwise.
- f. All individual assignments are to be done individually. While you may discuss the assignment in general terms with others, your solutions should be composed, designed, written, and tested by you alone.
- g. For assignments that require written responses (on paper or digitally), students must ensure that their answers are neat and legible. If the instructor cannot

clearly read or understand a response due to poor handwriting or formatting, the answer may receive a 0. It is the student's responsibility to present their work in a clear and professional manner.

2. Communication

- a. The most effective and secure way to communicate with your instructor is via email. Emails directed to the instructor (e.g., an assignment, a question) must contain the following line in the subject of your email:

[CS1310] Last Name, First Name: <matter>

If your email does not contain this line, your email will be automatically directed to the Spam folder.

- b. Announcements and messages regarding general course information will be posted on Blackboard and are also automatically sent to your UTEP email address. It is your responsibility to check your UTEP email daily to stay up to date with course announcements and deadlines. If you have a question or inquiry, please contact your instructor via email and do not use Blackboard messaging. Allow up to 48 business hours for a response.

3. Attendance and Deadlines

- a. It is the student's responsibility to make prior arrangements with the instructor if the student is unable to provide assessments or attend class or scheduled time on the multiple platforms, including Blackboard, on the day of any exam or project presentation.
- b. Exams/presentations will be administered at the assigned time, and a student will be considered absent if not present at the assigned time. A grade of zero (0) will be given if an exam is not taken and no prior arrangements to take the exam have been made. If prior arrangements have been made or if an emergency arises, the make-up test will be administered during finals week for the current semester or at the instructor's convenience.
- c. There will be no make-up opportunities for quizzes under any circumstances. Students are expected to complete quizzes on the scheduled date and time.
- d. Students are expected to attend every class session, as in-class instruction, participation, and activities are key to understanding the material. Attendance will be recorded daily using iClicker. Please create an iClicker account using your UTEP email address and download the iClicker app on your mobile device. This will allow you to easily check in during class, as iClicker uses location-based check-ins. Failure to regularly attend class may affect your ability to keep up with assignments, quizzes, and important announcements.
- e. Students are responsible for withdrawing themselves by the "last-day-to-drop" date if they choose. The instructor can also drop the student for "lack of course pursuit" as defined by the University's policy. Attendance and course pursuit policies of the University can be reviewed in the Academic Catalog. Please review the new 6 Drop Rule related to withdrawals.

4. **Standards of Conduct:**

In the classroom and in all academic activities, students are expected to uphold the highest standards of academic integrity. Any form of scholastic dishonesty is an affront to the pursuit of knowledge and jeopardizes the quality of the degree awarded to all graduates of UTEP.

- Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to,
 - Cheating
 - Plagiarism
 - Uploading course materials or assignment questions to public forums, blogs, social media, or websites like Chegg, StackOverflow.
 - The submission for credit of any work or any materials that are attributable in whole or in part to another person.
 - Taking an examination for another person.
 - Using test materials not authorized by the instructor.
 - An act designed to give an unfair advantage to a student or the attempt to commit such acts.
 - To uphold the principles of originality, critical thinking, and independent learning, the following policy applies to the use of artificial intelligence (AI) tools such as ChatGPT:
 - AI tools **may be used for learning and reinforcement purposes only**, such as reviewing concepts, clarifying explanations, or practicing problems **outside of graded work**, unless explicitly stated otherwise.
 - **For any assignment, exam, quiz, project, or assessment where the use of AI is not explicitly permitted**, the use of ChatGPT or any similar AI language-generation tools is **strictly prohibited**.
 - **Only assignments that clearly state that AI use is allowed** may involve AI tools, and even then, students must follow the specific guidelines provided for that assignment.
 - Failure to comply with this policy will be considered a violation of academic integrity.
- Proven violations of the detailed regulations, as printed in the Handbook of Operating Procedures may result in sanctions ranging from disciplinary probation to a failing grade in the course, to suspension or dismissal, among others. The Handbook of Operating Procedures: Student Conduct and Discipline can be accessed at the following link: <https://www.utep.edu/hoop/section-2/student-conduct-and-discipline.html>

DISABILITIES:

The University is committed to providing reasonable accommodations and auxiliary services to students, staff, faculty, job applicants, applicants for admissions, and other beneficiaries of University programs, services and activities with documented disabilities in order to provide them with equal opportunities to participate in programs, services, and activities in compliance with sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Reasonable accommodations will be made unless it is determined that doing so would cause undue hardship on the University. Students requesting an accommodation based on a disability must register with the [UTEP Center for Accommodations and Support Services](#) (CASS). Contact the Center for Accommodations and Support Services at 915-747-5148, or email them at cass@utep.edu, or apply for accommodations online via the [CASS portal](#).

The instructor reserves the right to make necessary changes to this syllabus and to the delivery of the course.

IMPORTANT DATES

For a complete list of dates, please visit UTEP's Academic Calendar. Here are selected dates that might impact this course.

Jan. 20 th	Classes Begin
Feb. 4 th	Census Date
Mar. 16 th – 20 th	Institutional Holiday – No Classes
Mar. 31 st	Institutional Holiday – Cesar Chavez – No Classes
Apr. 2 nd	Last Day to Drop with a "W"
Apr. 3 rd	Institutional Holiday – Spring Study Day – No Classes
May 8 th	Dead Day
May 11 th – 15 th	Finals
May 21 th	Final Grades Available

Tentative Schedule

Week	Learning Objective
Week 1	Intro to course and Intro to Pillars of Computational Thinking and Problem-solving
Week 2	Intro to Pillars of Computational Thinking and Problem Solving and What is Critical Thinking and Adversarial Thinking and how it helps in Problem Solving?
Week 3	Computer hardware, OS types
Week 4	How computers store data, number system, binary to decimal conversion
Week 5	Exam I
Week 6	Intro to R Programming—Installation, printing a message, basic data types, use of variables.
Week 7	Arithmetic and logical expressions, intro to conditional statements
Week 8	Iteration, iteration with selection
Week 9	Modularization/Functions
Week 10	Exam II
Week 11	Testing and debugging
Week 12	I/O operations, reading from files, reading data files
Week 13	Data processing, analytics and visualization
Week 14	Data processing, analytics and visualization
Week 15	Exam III
Week 16	Final Exam—Tuesday, May 12 th , 2026—4:00 PM - 6:45 PM